

WHAT IS CLAIMED IS:

1. A vehicle-mounted radio wave radar, comprising:  
transmitting/receiving section for transmitting and receiving a radio signal;  
signal processing section for processing the radio signal transmitted and received by said transmitting/receiving section;  
an electrically conductive housing for accommodating said signal processing section therein;  
an electrically conductive member supporting said transmitting/receiving section and disposed so as to close an opening of said electrically conductive housing, and electrically connected to said electrically conductive housing; and  
an insulating member for inhibiting direct current from passing through said insulating member,  
wherein said electrically conductive housing is connected to a vehicle body through at least said insulating member, ground of said transmitting/receiving section and said signal processing section being electrically connected to at least said electrically conductive housing or said electrically conductive member.
2. A vehicle-mounted radio wave radar according to claim 1, further comprising an electrically conductive outer housing for accommodating said electrically conductive housing therein, wherein said electrically conductive housing is connected to said electrically conductive outer housing through said insulating member, said electrically conductive outer housing being electrically connected to said vehicle body.

3. A vehicle-mounted radio wave radar according to claim 1, wherein said insulating member is constructed by insulating material.

4. A vehicle-mounted radio wave radar according to claim 1, wherein said insulating member is a capacitive element.

5. A vehicle-mounted radio wave radar according to claim 1, further comprising biasing means for fixing said signal processing section within said housing by a biasing force.

6. A vehicle-mounted radio wave radar according to claim 1, wherein said signal processing section comprises a plurality of circuit boards stacked in the multilayered form by a plurality of spacers for sandwiching each of said circuit boards from above and below to support said circuit boards.

7. A vehicle-mounted radio wave radar according to claim 6, wherein said spacers are electrically conductive and said plurality of circuit boards have ground connected to each other through said spacers.

8. A vehicle-mounted radio wave radar according to claim 1, wherein said electrically conductive housing is formed of a resin having a metal-plated surface, having a surface coated with metallic powder, or being mixed with metallic powder.

9. A vehicle-mounted radio wave radar according to claim 1, further comprising means for attaching said vehicle-mounted radio wave radar to said vehicle body, said attaching means including an adjusting mechanism for adjusting an attachment angle of said attaching means.

10. A method of attaching a vehicle-mounted radio wave radar to a vehicle body, comprising the steps of:

attaching a radio wave transmitting/receiving section to an electrically conductive member;

accommodating a signal processing section to the inner of an electrically conductive housing, wherein said signal processing section processes an electrical signal transmitted or received by said transmitting/receiving section;

arranging said electrically conductive member so as to close the opening of said electrically conductive housing, and electrically connecting said electrically conductive member to said electrically conductive housing;

connecting said electrically conductive housing to a vehicle body through at least an insulating member for inhibiting direct current from passing through said insulating member; and

electrically connecting ground of said transmitting/receiving section and said signal processing section to at least said electrically conductive housing or said electrically conductive member.

11. A method of attaching a vehicle-mounted radio wave radar to a vehicle body according to claim 10, connecting said electrically conductive housing to an electrically conductive outer housing through at least said insulating member, electrically connecting said electrically conductive outer housing to said vehicle body.

12. A method of attaching a vehicle-mounted radio wave radar to a vehicle body according to claim 10, wherein said insulating member is an insulating material.

13. A method of attaching a vehicle-mounted radio wave radar to a vehicle body according to claim 10, wherein said insulating member is a capacitive element.

14. A method of attaching a vehicle-mounted radio wave radar to a vehicle body according to claim 10, wherein said signal processing section comprises a plurality of circuit boards stacked in the multilayered form by a plurality of spacers.

15. A method of attaching a vehicle-mounted radio wave radar to a vehicle body according to claim 10, wherein said signal processing section comprises a plurality of circuit boards stacked in the multilayered form by a plurality of electrically conductive spacers, and ground of said plurality of circuit boards are connected with each other.